



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,591	12/09/2003	Lowell L. Winger	03-0970 1496.00331	3904
24319	7590	11/15/2007		
LSI CORPORATION 1621 BARBER LANE MS: D-106 MILPITAS, CA 95035			EXAMINER WONG, ALLEN C	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 11/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/731,591	Applicant(s) WINGER, LOWELL L.	
	Examiner Allen Wong	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/30/07 with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

The 101 rejection is withdrawn due to amendment.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 and 9-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Joch (7,227,901).

Regarding claim 1, Joch discloses a method for activating and deactivating parameter sets during decoding of a bitstream for display comprising the steps of:

storing a first picture parameter information set associated with a first identification value and a second picture parameter information set associated with a second identification value in a computer readable storage medium (fig.2, note that element 19 shows the first picture parameter set with a corresponding identification id=0, and element 31 shows the second picture parameter set with the corresponding identification id=1; fig.1, note the system 10 uses computers that have processors 16

Art Unit: 2621

and must store video data and associated video data that includes picture parameter information sets at least on a temporary for permitting the encoding, transmittal and display of video data), wherein said first and said second picture parameter information sets comprise infrequently changing picture parameter information (fig.2, Joch discloses there are at least two or more picture parameter sets 31, wherein each of those elements 31 can go from id=0, 1, 2...M; and col.9, ln.6-11, Joch discloses the first and second parameter sets are infrequently changing at the picture level 19);

tagging said first picture parameter information set as active in response to a reference to said first identification value in a bitstream (col.9, ln.24-33, Joch discloses the activation or tagging of the first picture parameter information set as active in response to the reference of the identification value in the bitstream for decoding image data, wherein "M" is the unique identification ID number that specifies the corresponding picture parameter set, as seen in fig.2); and

changing the tag of said first picture parameter information set from active to inactive and tagging said second picture parameter information set as active in response to a reference to said second identification value in said bitstream (col.9, ln.55-58; Joch discloses that dependent on the flag of the picture parameter set 31, the transmission of the offsets can be disabled for changing the tag or flag of the first picture parameter set from active to inactive or disabled, and that the second picture parameter information set can be set as active corresponding to the flag, as previously disclosed in lines 24-33 of col.9, in that there is a corresponding identification value in the second picture parameter set to the unique ID number "M").

Regarding claims 2 and 12, Joch discloses the first and second picture parameter sets comprise H.264/MPEG-4-AVC compliant picture parameter sets (col.9, ln.9-11).

Regarding claims 3 and 13, Joch discloses the first and second picture parameter sets comprise H.264/MPEG-4-AVC compliant sequence parameter sets (col.9, ln.9-11).

Regarding claims 4 and 14, Joch discloses receiving said first picture parameter information and second picture parameter information set in said bitstream prior to receiving said reference to said first identification value and said reference to said second identification value, respectively (fig.2, Joch discloses the receipt of the first and second parameter sets before the identification values are received since the identification values are then processed for affecting the corresponding sequence parameter sets).

Regarding claims 5 and 15, Joch discloses tagging said second picture parameter information set as inactive and re-tagging said first picture parameter information set as active in response to a subsequent reference to said first identification value in said bitstream (col.9, ln.55 to col.10, ln.3, Joch discloses that the picture parameter sets can be chosen by the encoder or set at the time of the system setup, in other words, the deactivation and re-activation of the picture parameter information sets can be user initiated for decoding image data).

Regarding claims 6 and 16, Joch discloses wherein the step of storing picture parameter information sets and further comprises storing a plurality of sequence

parameter sets and a plurality of picture parameter sets and only one sequence parameter set and one picture parameter set are tagged as active at any given time (col.9, ln.9-11 and ln.24-33, Joch discloses the use of picture and sequence parameter sets; col.9, ln.55 to col.10, ln.3, Joch discloses that the picture parameter sets can be chosen by the encoder or set at the time of the system setup, in other words, the deactivation and activation of the picture parameter information sets can be user initiated for decoding image data at any time depending on the user).

Regarding claim 9, Joch discloses controlling a video decoding process based upon an active sequence parameter set and an active picture parameter set (col.9, ln.9-11 and ln.24-33; also, col.9, ln.55 to col.10, ln.3, Joch discloses that the picture parameter sets can be chosen by the encoder or set at the time of the system setup, in other words, the deactivation and activation of the picture parameter information sets can be user initiated for decoding image data at any time depending on the user).

Regarding claim 10, Joch discloses an apparatus comprising:

means for storing a first picture parameter information set associated with a first identification value and a second picture parameter information set associated with a second identification value in a computer readable storage medium (fig.2, note that element 19 shows the first picture parameter set with a corresponding identification id=0, and element 31 shows the second picture parameter set with the corresponding identification id=1; fig.1, note the system 10 uses computers that have processors 16 and must store video data and associated video data that includes picture parameter information sets at least on a temporary for permitting the encoding, transmittal and

display of video data), wherein said first and said second picture parameter information sets comprise infrequently changing picture parameter information (fig.2, Joch discloses there are at least two or more picture parameter sets 31, wherein each of those elements 31 can go from id=0, 1, 2...M; and col.9, ln.6-11, Joch discloses the first and second parameter sets are infrequently changing at the picture level 19);

means for activating said first picture parameter information set in response to a reference to said first identification value in a bitstream (col.9, ln.24-33, Joch discloses the activation or tagging of the first picture parameter information set as active in response to the reference of the identification value in the bitstream for decoding image data, wherein "M" is the unique identification ID number that specifies the corresponding picture parameter set, as seen in fig.2);

means for deactivating said first picture parameter information set and activating said second picture parameter information set in response to a reference to said second identification value in said bitstream (col.9, ln.55-58; Joch discloses that dependent on the flag of the picture parameter set 31, the transmission of the offsets can be disabled for changing the tag or flag of the first picture parameter set from active to inactive or disabled, and that the second picture parameter information set can be set as active corresponding to the flag, as previously disclosed in lines 24-33 of col.9, in that there is a corresponding identification value in the second picture parameter set to the unique ID number "M"); and

means for decoding said bitstream for display based upon an active picture parameter information set (col.9, ln.24-33, Joch discloses the use of active picture

parameter information set for decoding picture data for display monitor element 13 of fig.1 for viewing).

Regarding claim 11, Joch discloses an apparatus comprising:

a first circuit configured to tag a first picture parameter information set as active in response to receiving a reference to a first identification value associated with said first picture parameter information set in a bitstream (col.9, ln.24-33, Joch discloses the activation or tagging of the first picture parameter information set as active in response to the reference of the identification value in the bitstream for decoding image data, wherein "M" is the unique identification ID number that specifies the corresponding picture parameter set, as seen in fig.2) and to untag said first picture parameter information set as active and tag a second picture parameter information set as active in response to receiving a reference to a second identification value associated with said second picture parameter information set in said bitstream (col.9, ln.55-58; Joch discloses that dependent on the flag of the picture parameter set 31, the transmission of the offsets can be disabled for changing the tag or flag of the first picture parameter set from active to inactive, disabled or untagged, and that the second picture parameter information set can be set as active corresponding to the flag, as previously disclosed in lines 24-33 of col.9, in that there is a corresponding identification value in the second picture parameter set to the unique ID number "M"); and

a second circuit configured to store said first picture parameter information set and said second picture parameter information set (fig.2, note that element 19 shows

the first picture parameter set with a corresponding identification id=0, and element 31 shows the second picture parameter set with the corresponding identification id=1; fig.1, note the system 10 uses computers that have processors 16 and must store video data and associated video data that includes picture parameter information sets at least on a temporary for permitting the encoding, transmittal and display of video data).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joch (7,227,901) in view of Yoo (6,999,512).

Regarding claims 7 and 17, Joch does not specifically disclose further comprising the steps of: parsing network abstraction layer (NAL) unit syntax from a bitstream; and parsing one or more NAL types from said NAL syntax. However, Yoo teaches the parsing of MPEG video layer syntax (fig.4, note the parsing of sequence header 402, parsing Gop header 404, parsing picture header 406, parsing slice header 408, parsing macroblock header 410). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Joch and Yoo, as a whole, for accurately, efficiently encoding/decoding video image data while maintaining high image quality.

Regarding claims 8 and 18, Joch discloses the use of active picture and sequence parameter information sets (col.9, ln.9-11 and ln.24-33; also, col.9, ln.55 to

Art Unit: 2621

col.10, ln.3, Joch discloses that the picture parameter sets can be chosen by the encoder or set at the time of the system setup, in other words, the deactivation and activation of the picture parameter information sets can be user initiated for decoding image data at any time depending on the user). Joch does not specifically disclose the second parser is further configured to parse said one or more NAL unit types. However, Yoo teaches the parsing of MPEG video layer syntax (fig.4, note the parsing of sequence header 402, parsing Gop header 404, parsing picture header 406, parsing slice header 408, parsing macroblock header 410). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Joch and Yoo, as a whole, for accurately, efficiently encoding/decoding video image data while maintaining high image quality.

Regarding claim 19, Joch discloses the video decoder for decoding image data based on active picture and sequence parameter sets (col.9, ln.9-11 and ln.24-33; also, col.9, ln.55 to col.10, ln.3, Joch discloses that the picture parameter sets can be chosen by the encoder or set at the time of the system setup, in other words, the deactivation and activation of the picture parameter information sets can be user initiated for decoding image data at any time depending on the user). Joch does not specifically disclose the second parser. However, Yoo teaches the parsing of MPEG video layer syntax (fig.4, note the parsing of sequence header 402, parsing Gop header 404, parsing picture header 406, parsing slice header 408, parsing macroblock header 410). Therefore, it would have been obvious to one of ordinary skill in the art to combine the

teachings of Joch and Yoo, as a whole, for accurately, efficiently encoding/decoding video image data while maintaining high image quality.

Regarding claim 20, Joch discloses a device configured to present a video display (fig.1, element 13).

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

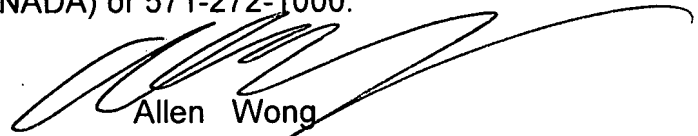
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Allen Wong
Primary Examiner
Art Unit 2621

AW
11/13/07